

CLAIMS

1. A method for providing a virtual fence for use with a delivery vehicle, the method comprising steps of:
 - detecting a protection event;
 - determining that the protection event is an activation event; and
 - activating a selected virtual fence based on the activation event.
2. The method of claim 1, wherein the selected virtual fence is selected from a group comprising a boundary fence, a perimeter fence, and a route fence.
3. The method of claim 1, further comprising steps of:
 - determining that the activation event is a sub-event; and
 - activating the selected virtual fence based the sub-event.
4. The method of claim 3, wherein the sub-event is one of a vehicle sub-event, a trailer sub-event, and a driver sub-event
5. The method of claim 3, further comprising a step of activating one of a boundary fence, a perimeter fence, and a route fence based on the sub-event.
6. The method of claim 3, wherein the delivery vehicle comprises a tractor portion and a trailer portion and the sub-event is a trailer sub-event that occurs when the trailer portion is unhooked from the tractor portion.
7. The method of claim 1, further comprising steps of:
 - determining that the protection event is a deactivation event; and
 - deactivating a virtual fence based on the activation event.
8. A protection system that operates to provide a virtual fence for use with a delivery vehicle, the protection system comprising:
 - input logic that is coupled to receive a protection signal;
 - fence logic that is coupled to the input logic, and wherein the fence logic operates to detect an activation event based on the protection signal and activate a selected virtual fence based on the activation event.

9. The protection system of claim 8, wherein the input logic is operator input logic and the protection signal is an operator input signal.

10. The protection system of claim 8, wherein the input logic is a sensor input logic and the protection signal is a sensor input signal.

11. The protection system of claim 10, wherein the delivery vehicle comprises a tractor portion and a trailer portion and the sensor input signal indicates when the trailer portion is unhooked from the tractor portion.

12. The protection system of claim 8, wherein the input logic is position input logic and the protection signal is a position signal.

13. The protection system of claim 8, wherein the input logic is communication input logic and the protection signal is a communication signal.

14. The protection system of claim 8, wherein the protection signal is any combination of an operator signal, a sensor signal, a position signal, and a communication signal.

15. The protection system of claim 8, further comprising position logic that operates to determine a vehicle position, wherein the position logic outputs the vehicle position in a position signal that is the protection signal.

16. The protection system of claim 8, further comprising message processing logic that is coupled to the fence logic, wherein the message processing logic outputs a vehicle message that is used to control a vehicle control system.

17. Apparatus for providing a virtual fence for use with a delivery vehicle, the apparatus comprising:

means for detecting a protection event;

means for determining that the protection event is an activation event; and

means for activating a selected virtual fence based on the activation event.

18. The apparatus of claim 17, further comprising:
means for determining that the activation event is a sub-event; and
means for activating the selected virtual fence based the sub-event.

19. The apparatus of claim 18, further comprising means for activating one of a boundary fence, a perimeter fence, and a route fence based on the sub-event.

20. The apparatus of claim 18, wherein the delivery vehicle comprises a tractor portion and a trailer portion and the apparatus further comprises means for determining that the sub-event is a trailer sub-event that occurs when the trailer portion is unhooked from the tractor portion.

21. The apparatus of claim 20, wherein the trailer portion comprises cargo and the apparatus further comprises means for determining if the cargo is moved outside the selected virtual fence.

22. The apparatus of claim 17, further comprising means for deactivating a virtual fence based on the activation event.

23. The apparatus of claim 17, further comprising means for outputting a vehicle message that is used to control a vehicle control system.

24. A computer-readable medium comprising computer-executable instructions for providing a virtual fence for use with a delivery vehicle, the instructions when executed perform a method, comprising steps of:

detecting a protection event;
determining that the protection event is an activation event; and
activating a selected virtual fence based on the activation event.